REMARKS

Reconsideration of the above-identified application as amended respectfully is solicited on behalf of the Applicants. With the instant response, three (3) claims are amended. A clean copy of the amended claims is annexed hereto.

The outstanding Office Action imposes a restriction requirement between: Group I, claims 1-14; Group II, claims 15-27; and Group III, claims 28-30. Applicants confirm the provisional election with traverse made by their attorney to elect the Group II claims. The traverse is hereby withdrawn.

Claims 17, 24, and 26 have been objected to as not being punctuated with a period. With the present response, that informality has been corrected.

It is noted that claims 15, 17-18, 23 and 25-27 have been rejected under 35 U.S.C. §102(b) as being anticipated by Kosuga *et al.*, U.S. Patent No. 4,960,642.

Independent claim 15 recites that the organic material coating the fibers has a viscosity of not greater than about 1500 cps at a temperature range of from 80°C-180°C. In contrast, the materials of Kosuga *et al.* to not appear to exhibit a viscosity within the claimed range at the claimed temperature range. Rather, the reference materials are heated to a melting temperature which, at least in Example 1, appears to be 200°C. Indeed, in connection with the rejection of claim 15 under § 103(b), the Examiner has noted that "Kosuga does not show that the pellets have such a viscosity at temperatures of from 80°C - 180°C."

At least because of this difference, independent claim 15 is believed to be novel over the cited reference. *See In re Bond*, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990), *citing Diversitech Corp. v. Century Steps, Inc.*, 7 U.S.P.Q.2d 1315, 1317 (Fed. Cir. 1988) (for a prior art reference to anticipate in terms of 35 U.S.C. § 102, every element of the claimed invention must be identically shown in the single reference); *see also In re Spada*. 15 U.S.P.Q.2d 1655, 1657 (Fed Cir. 1990) (rejection for anticipation requires that all the elements of the claimed invention be described in a single reference, and that the reference describe the claimed invention sufficiently to have placed one of ordinary skill in the art in possession of it). Dependent claims 17-18, 23 and 25-27 further describe the independent claim, and likewise should be considered novel.

Claims 15, 16, and 19-22 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kosuga *et al.* reference.

Regarding independent claim 15, and as mentioned, the Examiner has noted that the Kosuga *et al.* reference "does not show that the pellets have such a viscosity at temperatures of from 80°C - 180°C." However, the Examiner considers Kosuga to use the same organic thermoplastic resin oligomer materials as Applicants.

As the Examiner has observed in connection with claims 15 and 24, "Kosuga shows that the organic thermoplastic resin oligomers used to coat the conductive carbon fibers include polyester resins, ethylene-ethyleacrylate resins (claims 2-4). Kosuga does not show that the organic thermoplastic resin oligomers are comprised of those listed in instant claim 24." Thus, it does not appear that the Kosuga and Applicants in fact use the same oligomer materials. Moreover, to the extent that the respective materials of Kosuga and Applicants might be considered to somehow overlap, it is submitted that the Applicants contemplate the use of a different class of materials, e.g., having a degree of polymerization (n) of less than about 20, so as to exhibit a viscosity of not greater than about 1500 cps at a temperature range of from 80°C-180°C. Kosuga, in contrast, contemplates the use of materials, whether or not of the same chemical composition, nonetheless being different as having a relatively higher degree of polymerization, e.g., n<300, and, accordingly, a relatively higher viscosity with the claimed range.

Additionally regarding claims 19-22, those claims further describe the pellet of claim 15 wherein the viscosity of the organic coating material is from not greater than 400 cps (claim 19) to not greater than 5 cps (claim 22). Clearly, the very low viscosity materials encompassed by claims 19-22 would appear to be far outside the range of materials contemplated by Kosuga.

Ultimately, it is submitted that one following the teachings of the Kosuga *et al.* reference would not have been motivated to use the relatively low viscosity coating materials to which claims 15 and 19-22 are directed. While the Examiner might consider the difference between the claimed materials and those of the reference to be trivial or otherwise without patentable import, Applicants submits that Kosuga materials require the use of extruders or other high-pressure application to effect the impregnation of the fibers, whereas the instantly claimed materials may be impregnated using a bath or other low pressure means. Thus, it is believed that the claimed pellets may be produced using less expensive and complicated equipment and, accordingly, more economically than those of the cited reference. Such is a result and advantage

of the claimed invention which must be considered in passing on the obviousness or nonobviousness thereof. *See In re Wright*, 6 U.S.P.Q.2d 1959, 1961-62 (Fed. Cir. 1988).

Claims 1 and 19-22 therefore are believed to properly distinguish over the art made of record. Claim 16 further describes the pellets of claim 15, and likewise should be considered allowable for the reasons given in connection therewith.

Lastly, it is noted that claims 15 and 24 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kosuga *et al.* reference in view of Kobayashi *et al.*, U.S. Patent No. 4,356,228. As mentioned, the Examiner has noted that the Kosuga reference does not show the oligomers listed in claim 24. The Kobayashi reference has been cited as disclosing carbon fiber reinforced composites which include as the matrix resins polyesters, poly(bisphenol A carbonate), polysulfones, styrene resins, and acrylic resins. The Examiner is of the opinion that it would have been obvious to use a bisphenol A resin in the organic thermoplastic resin oligomer coating of the present invention since bisphenol A, polyester, and acrylic resins are functional equivalents.

However, and in contrast to claims 1 and 15, the resins listed in Kobayashi reference appear to be used as the matrix resin rather than, as is claimed, as a coating which is applied to the fibers and which coated fibers, in turn, are encased in a matrix resin to form a pellet. Accordingly, it is submitted that one of ordinary skill in the art, following the teachings of the Kobayashi reference, would not have been motivated to substitute those resins, which in fact appear to be true polymers rather than monomers or oligomers, for the oligomer resins coating materials of the Kosuga reference. Thus, it is submitted that claims 15 and 24 should be considered to distinguish over the Kosuga and Kobayashi references, whether taken singly or in combination.

In view of the foregoing remarks, wherein the claim program as amended has been shown to clearly define the claimed invention as being novel and nonobvious over art made of record, the issuance of a Notice of Allowance is earnestly solicited.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited on May 29, 2002, with the United Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231.

John A. Molnar, Jr.

AMENDED CLAIMS

Claim 17 has been amended as follows:

17. (Amended) The pellets of claim 15 wherein the pellets have an average length of between 2mm to 12mm.

Claim 24 has been amended as follows:

24. (Amended) The pellets of claim 15 wherein the organic material is chosen from the group consisting of bisphenol A, propoxylated bisphenol A, diphenyl ether, diphenyl sulfone, stilbene, diglycidyl ether of bisphenol A, triglycidylisocyanurate, citric acid, pentaerythritol, dicyandiimide, 4,4'-sulfonyldianiline, 3,3'-sulfonyldianiline, stearate-capped propyleneglycol fumarate oligomer, butoxyethylstearate, ethylene carbonate, sorbitan monostearate, hydrogenated vegetable oil, and mixtures thereof.

Claim 26 has been amended as follows:

26. (Amended) The composite of claim 15 wherein the polymer is chosen from the group consisting of polycarbonate, acrylonitrile butadiene styrene, polycarbonate acrylonitrile butadiene styrene copolymer, polybutylene terephthalate, styrene, polypropylene, and nylon.